FREE eBook

LEARNING wix

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#wix

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About

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Chapter 1: Getting started with wix

Remarks

What is WiX?

The WiX toolset lets developers create installers for Windows Installer, the Windows installation engine. It is open source and part of the .NET Foundation.

The core of WiX is a set of build tools that build Windows Installer packages using the same build concepts as the rest of your product: source code is compiled and then linked to create executables; in this case .exe setup bundles, .msi installation packages, .msm merge modules, and .msp patches. The WiX command-line build tools work with any automated build system. Also, MSBuild is supported from the command line, Visual Studio, and Team Build.

WiX includes several extensions that offer functionality beyond that of Windows Installer. For example, WiX can install IIS web sites, create SQL Server databases, and register exceptions in the Windows Firewall, among others.

With Burn, the WiX bootstrapper, you can create setup bundles that install prerequisites like the .NET Framework and other runtimes along with your own product. Burn lets you download packages or combine them into a single downloadable .exe.

The WiX SDK includes managed and native libraries that make it easier to write code that works with Windows Installer, including custom actions in both C# and C++.

How does WiX work?

The WiX source code is written in XML format with a .wxs file extension. The WiX tools follow the traditional compile and link model used to create executables from source code.

At build time, the WiX source files are validated against the core WiX schema, then processed by a preprocessor, compiler, and linker to create the final result. There are a set of WiX tools that can be used to produce different output types.

WiX system requirements

WiX supports both .NET 3.5 and 4.0 and later. WiX's MSBuild supports requires .NET 3.5, which is not installed by default on Windows 8 and Windows Server 2012 and later.

In the next version of WiX (v3.11), .NET 4.0 will be required; building using .NET 3.5 will no longer be supported.

Versions

Version	Release dates
3.11	2017-05-05
3.10.3	2016-07-04
3.9 R2	2015-01-21
3.8	2013-11-28
3.7	2012-12-24
3.6	2012-09-03
3.5	2011-01-19
3.0	2009-06-19
2.0	2007-10-05

Examples

Installation or Setup

Download and install the WiX Toolset from wixtoolset.org.

The installer for the WiX Toolset provides also the integration with Visual Studio, after the installation you should be able to create WiX specific projects.

Warnings

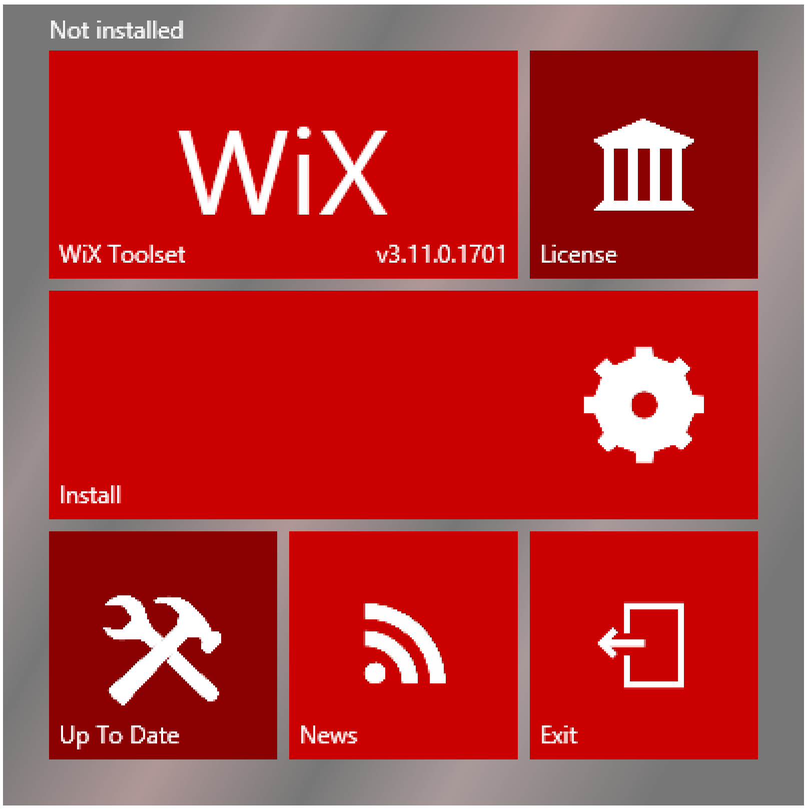
Admin rights are needed.

Some versions of WiX are compatible only with particular version of Visual Studio:

- V3.11 and afterwards doesn't include the extensions for Visual Studio, you have to download the extensions for your versions of Visual Studio
- V3.10 and below doesn't works with Visual Studio 2017 but includes the project templates for Visual Studio

Details

The installer is build with WiX itself and present an unusual window:



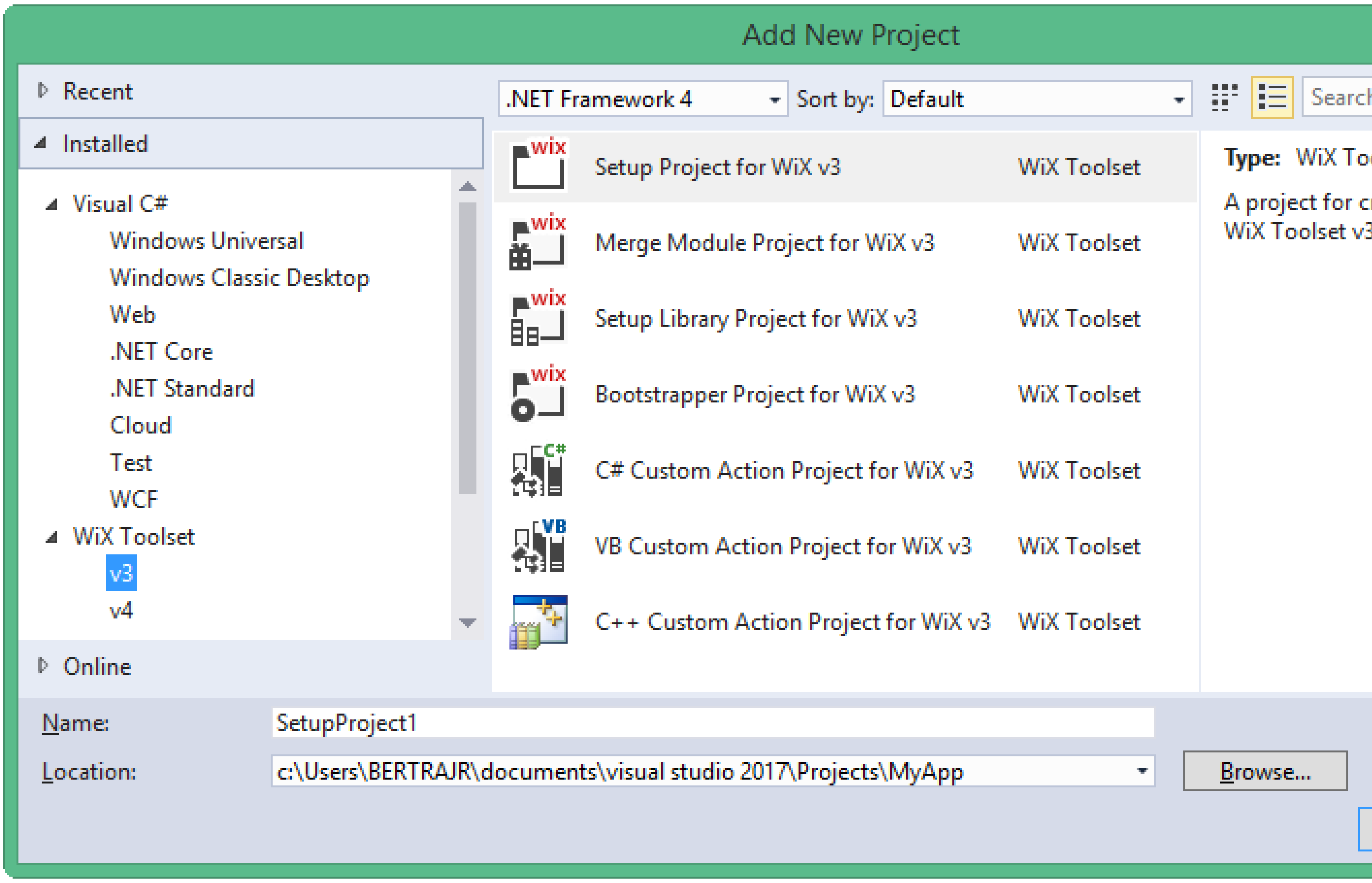
It is composed by 6 parts:

- WiX Toolset: show the version installed by the installer and launch the Wix Toolset website on click
- License: show the license
- Install: start the install
- Up To Date: check if a new version is available
- News: launch the WiX news
- Exit: close the installer

Simple Setup

This example assume that a solution with an application named `MyApp` already exists.

- Add a new project to the solution:



Setup Project for WiX v3	WiX Toolset
Merge Module Project for WiX v3	WiX Toolset
Setup Library Project for WiX v3	WiX Toolset
Bootstrapper Project for WiX v3	WiX Toolset
C# Custom Action Project for WiX v3	WiX Toolset
VB Custom Action Project for WiX v3	WiX Toolset
C++ Custom Action Project for WiX v3	WiX Toolset

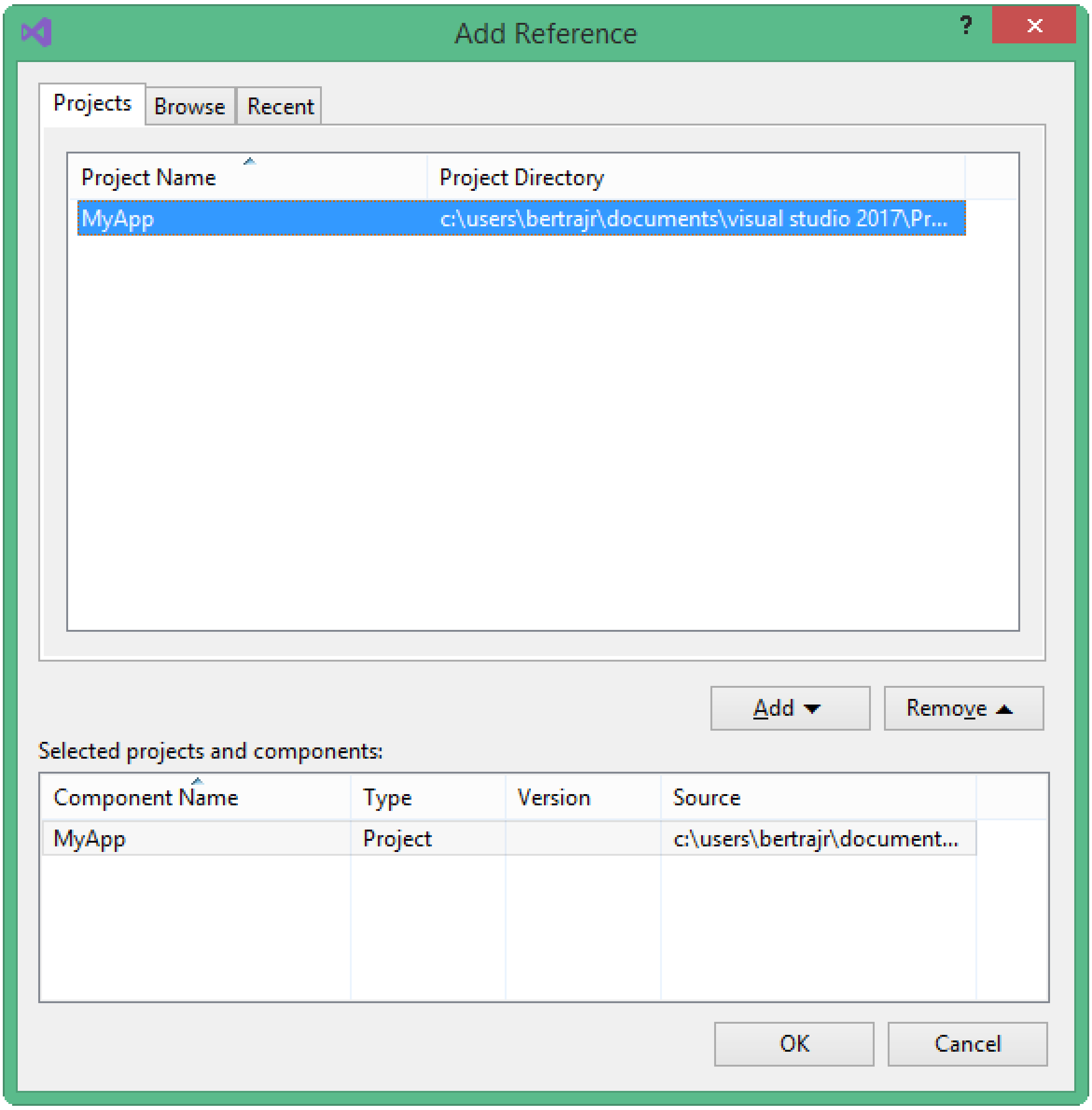
Type: WiX To

A project for c
WiX Toolset v3

Name: SetupProject1

Location: c:\Users\BERTRAJR\documents\visual studio 2017\Projects\MyApp

- In the Setup project, add a new reference to `MyApp` from the Projects tab:



Project Name	Project Directory
MyApp	c:\users\bertrajr\documents\visual studio 2017\Pr...

Selected projects and components:

Component Name	Type	Version	Source
MyApp	Project		c:\users\bertrajr\document...

- In the `Product.wxs` file, valorize the `Manufacturer` attribute of the `Product` node with `HelloWorld`:

```
<Product Id="*" Name="MyApp.Setup" Language="1033" Version="1.0.0.0" Manufacturer="HelloWorld"
UpgradeCode="52f2c69b-5901-4d18-bb96-8c1c86cd1a3e">
```

In the `Fragment` node containing the `Directory` nodes, wrap the last with a new `Directory`:

```
<Directory Id="ManufacturerFolder" Name="!(bind.property.Manufacturer)">
    <Directory Id="INSTALLFOLDER" Name="MyApp.Setup" />
</Directory>
```

In the `ComponentGroup` node, uncomment the commented nodes and remove the `TODO` then add a `File` node in the `Component`:

```
<File Source="$(var.MyApplication.TargetPath)" />
```

The Source attribute specifies where to find the file for packaging during the build. Rather than hard-code values for these attributes into our source code, we use the WiX preprocessor variables that are passed to the WiX compiler.

- Build the WiX project.

That's it! Now you have a working installer that installs and uninstalls the application.

Full `Product.wxs` file:

```
<?xml version="1.0" encoding="UTF-8"?>
<Wix xmlns="http://schemas.microsoft.com/wix/2006/wi">
    <Product Id="*" Name="MyApp.Setup" Language="1033" Version="1.0.0.0"
Manufacturer="HelloWorld" UpgradeCode="52f2c69b-5901-4d18-bb96-8c1c86cd1a3e">
        <Package InstallerVersion="200" Compressed="yes" InstallScope="perMachine" />

        <MajorUpgrade DowngradeErrorMessage="A newer version of [ProductName] is already
installed." />
        <MediaTemplate />

        <Feature Id="ProductFeature" Title="MyApp.Setup" Level="1">
            <ComponentGroupRef Id="ProductComponents" />
        </Feature>
    </Product>

    <Fragment>
        <Directory Id="TARGETDIR" Name="SourceDir">
            <Directory Id="ProgramFilesFolder">
                <Directory Id="ManufacturerFolder" Name="!(bind.property.Manufacturer)">
                    <Directory Id="INSTALLFOLDER" Name="MyApp.Setup" />
                </Directory>
            </Directory>
        </Directory>
    </Fragment>

    <Fragment>
        <ComponentGroup Id="ProductComponents" Directory="INSTALLFOLDER">
            <Component Id="ProductComponent">
                <File Source="$(var.MyApp.TargetPath)" />
            </Component>
        </ComponentGroup>
    </Fragment>
</Wix>
```

Read Getting started with wix online: https://riptutorial.com/wix/topic/4487/getting-started-with-wix

Credits

S. No	Chapters	Contributors
1	Getting started with wix	Community, cristallo, Jérémie Bertrand